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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,529	12/05/2003	Tomoyuki Funaki	YAMA:060	8293
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EXAMINER				
LEE, JINHEE J				
ART UNIT		PAPER NUMBER		
2174				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/728,529

Applicant(s)

FUNAKI, TOMOYUKI

Examiner

Jinhee J. Lee

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/ICE)
Paper No(s)/Mail Date 1207
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "An apparatus for arranging music score...comprising a controller comprising: a musical score notational element determining device...".

Applicant is required to cancel the new matter not previously disclosed.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "an apparatus for arranging music score...a controller comprising: a musical score notational element" in lines 1-8. This is confusing. It does not make sense as to how a musical score notational element

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determining device, a display size determining device etc. are part of a controller (which is supposed to be a tangible device according to the applicants argument submitted on 10/26/07). Clarify.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Re claim 1-8, claims 1-8 claim an apparatus that is a data structure, however, it appears the limitations of said claim are merely claiming statements defining various program items, therefore said limitations do not appear to be defining any functional interrelations which permits the computer program's functionality (or data structure's functionality) to be realized in a tangible way.

In view of the above, claims 1-8 are therefore directed to non-statutory subject matter.

The tangible device of Controller would overcome the 101 rejection, however, this is new matter not previously disclosed by the applicant, and therefore, this 101 rejection will remain.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto (20010023633).

Re claim 1 (as best understood), Matsumoto discloses an apparatus for arranging music score displaying data for displaying a music score on a given music score display area in one or more staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, said apparatus comprising:

an input device which inputs data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example); and

a controller (server computer 20 which would inherently have a controller for example) comprising:

a musical score notational element determining device which determines music score notational elements necessary for displaying a music score for each of said measures based on said music performance representing data (see paragraph 0005 for example);

a display size determining device which determines display sizes of said music score notational elements to be displayed on said display area (see paragraphs 0006 and 0008 for example);

a horizontal length determining device which determines a horizontal length of the music score to be displayed on said display area (see paragraphs 0006 and 0008 for example);

a measure apportioning device which calculates, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures, and apportions said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed such that the music score notational elements of each of said measures are placed on the apportioned staff tier in a length of at least said minimum horizontal length while each of said measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see paragraphs 0004 and 0006 and figure 7 for example); and

a music score display data output device which outputs music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures by said measure apportioning device (see paragraph 0005 for example).

Re claim 2, Matsumoto discloses an apparatus, wherein said music score notational elements are notes (see paragraph 0006 and figure 7 for example).

Re claim 3, Matsumoto discloses an apparatus, wherein said display size determining device includes controls to be operated by a user for determining the display sizes of said music score notational elements (see paragraph 0008 for example).

Re claim 4 (as best understood), Matsumoto discloses an apparatus, wherein the music score is to be displayed in tiers of musical staves on a page or pages, each page having said music score display area (see paragraph 009 for example), and wherein said controller further comprises: a vertical length determining device which determines a vertical length of the music score to be displayed on said display area (see paragraph 0006 and 0008 for example); and a staff tiers apportioning device which calculates, for each of said staff tiers based on said determined display sizes, a maximum vertical length for placing all the music score notational elements in the measures apportioned for the staff tier by said measures apportioning device, and apportions said staff tiers for said page based on said calculated maximum vertical length of each of said staff tiers and said determined vertical length of the music score to be displayed such that a number of staff tiers shall be placed within said music score display area on the page (see paragraph 0006 and 0008 for example), wherein said music score display data output device outputs music score display data for displaying the music score for the page by placing the music score notational elements in the staff tiers for which the measures are apportioned by said measure apportioning device according to the apportionment of the staff tiers as apportioned by said staff tiers apportioning device (see paragraph 0005 for example).

Re claim 5, Matsumoto discloses an apparatus, wherein said staff tiers apportioning device calculates said maximum vertical length by calculating the highest position of an notational element and the lowest position of an notational element

among said notational elements to be placed in each of said staff tiers (see paragraph 0006 and 0008 for example).

Re claim 6, Matsumoto discloses an apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a display device, said apparatus comprising: an input device which inputs data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example); and

a controller comprising (server computer 20 for example):

a display size determining device which determines display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data (see paragraph 0006 and 0008 for example);

a measure length calculating device which calculates, for each of said measures based on said determined display sizes of the music score notational elements, a horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements (see paragraph 0006 and 0008 for example);

a measure apportioning device which apportions the measures for each of said staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see figures 6 and 7 for example); and

a music score display data output device which outputs music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures (0005 for example).

Re claim 7, Matsumoto discloses an apparatus, wherein the measure apportioning device adjusts said music score display data such that a music score is displayed in a plurality of staff tiers on said display device on a page-by-page basis, and apportions said music score notational elements to be placed in a uniform distribution through the staff tier with respect to the music progression (see paragraph 0009 and figure 5 for example).

Re claim 8, Matsumoto discloses an apparatus, wherein said music score notational elements are notes (see paragraph 0006 and figure 7 for example).

Re claim 9, Matsumoto discloses a computer-readable storage medium storing a computer program for arranging music score displaying data for displaying a music score on a given music score display area in one or more staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, the computer program containing instructions for:

inputting data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example);

determining music score notational elements necessary for displaying a music score for each of said measures based on said music performance representing data (see paragraph 0005 for example);

determining display sizes of said music score notational elements to be displayed on said display area (see paragraph 0006 and 0008 for example);

determining a horizontal length of the music score to be displayed on said display area (see paragraph 0006 and 0008 for example);

calculating, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures,

apportioning said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed such that the music score notational elements of each of said measures are placed on the apportioned staff tier in a length of at least said minimum horizontal length while each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see paragraph 0006 and 0008 and figure 7 for example); and

outputting music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures (see paragraph 0005 for example).

Re claim 10, Matsumoto discloses a computer-readable storage medium storing a computer program for arranging music score displaying data for displaying a music score having measures of music progression on a display device, the computer program containing instructions for:

inputting data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example);

determining display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data (see paragraph 0005 for example);

calculating, for each of said measures based on said determined display sizes of the music score notational elements, a horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements (see paragraph 0006 and 0008 for example);

apportioning the measures for each of said staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see figures 6 and 7 for example); and

outputting music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures (see paragraph 0005 for example).

Response to Arguments

9. Applicant's arguments filed 10/26/07 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding the 101 rejections, while examiner agrees that positively claimed a tangible device such as controller would

overcome the 101 rejection, since the claimed controller is a new matter not previously disclosed and requires cancellation, the 101 rejection will remain in the office action.

Likewise, in response to applicant's arguments that Matsumoto does not teach of "a controller that controls the display in a particular manner set forth", examiner points out that the applicant does not teach of this controller, this is new matter to be cancelled.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M-F at 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-2100 ext. 74. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jinhee J Lee/
Primary Examiner, Art Unit 2174

jjl